

Alternating Diet as a Preventive and Therapeutic Intervention for High Fat Diet-induced Metabolic Disorder

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Supplementary Table S1

Supplementary Figure S1 and Figure Legend

Supplementary Figure S2 and Figure Legend

Supplemental Data

Table S1. Primer sets for real time PCR analysis of gene expression

Name	Forward sequence	Reverse sequence
<i>Pparγ1</i>	GGAAGACCACTCGCATTCCCTT	GTAATCAGCAACCATTGGGTCA
<i>Pparγ2</i>	TCGCTGATGCACTGCCTATG	GAGAGGTCCACAGAGCTGATT
<i>Cd36</i>	CCTTAAAGGAATCCCCGTGT	TGCATTGCCAATGTCTAGC
<i>Fabp4</i>	AAGGTGAAGAGCATCATAACCC	TCACGCCTTCATAACACATTCC
<i>Mgat1</i>	TGGTGCCAGTTGGTCCAG	TGCTCTGAGGTGGGTTCA
<i>Ppara</i>	TGTCGAATATGTGGGGACAA	AATCTTGCAGCTCCGATCAC
<i>Acox1</i>	CCGCAACCTTCAATCCAGAG	CAAGTTCTCGATTCTCGACGG
<i>Cpt1a</i>	CTCCGCCTGAGCCATGAAG	CACCA GTGATGATGCCATTCT
<i>Cpt1b</i>	GGTCTCTTCTTCAAGGTCTG	CGAGGATTCTCTGGA ACTGC
<i>Acadl</i>	TCTTTCCCTCGGAGCATGACA	CAGACCTCTACTCACTCTCCAG
<i>Acadm</i>	TTGAGTTGACGGAACAGCAG	GCCCCAAAGAACATTGCTCAA
<i>Ehhadh</i>	ATGGCTGAGTATCTGAGGCTG	ACCGTATGGTCAAACTAGCTT
<i>Fgf21</i>	CTGCTGGGGTCTACCAAG	CTGCGCCTACCACTGTTCC
<i>Insulin1</i>	CACTCCTACCCCTGCTGG	ACCACAAAGATGCTGTTGACA
<i>Insulin2</i>	GCTTCTTCTACACACCCATGTC	AGCACTGATCTACAATGCCAC
<i>F4/80</i>	CCCCAGTGTCTTACAGAGTG	GTGCCAGAGTGGATGTCT
<i>Cd68</i>	CCATCCTTCACGATGACACCT	GGCAGGGTTATGAGTGACAGTT
<i>Cd11b</i>	ATGGACGCTGATGGCAATACC	TCCCCATTACGTCTCCCA
<i>Cd11c</i>	ACGTCAGTACAAGGAGATGTTGGA	ATCCTATTGCAGAATGCTTCTTACC
<i>Mcp1</i>	ACTGAAGCCAGCTCTCTTCCCTC	TTCCTTCTGGGGTCAGCACAGAC
<i>Gapdh</i>	AGGTGGTGTGAACGGATTG	TGTAGACCATGTAGTTGAGGTCA

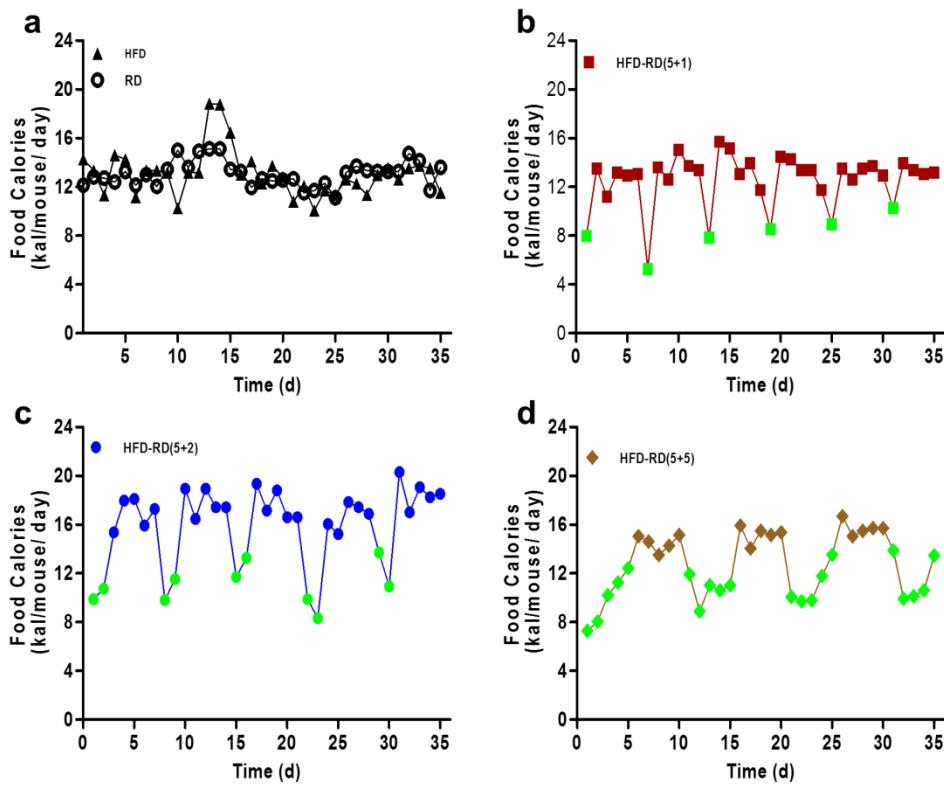


Figure S1. Effects of an alternating diet on daily calorie intake in obese mice. C57BL/6

obese mice and age-matched normal mice were fed a HFD and regular diet continuously (A), or an alternating diet with a schedule of 5+1 (B), 5+2 (C) or 5+5 (D). The green dots in panels B, C and D represent caloric intake of mice when on regular chow. Daily caloric intake was calculated based on daily food intake. HFD: 5.49 kcal/g; chow food: 3.46 kcal/g. Values were calculated from food intake of 5 animals.

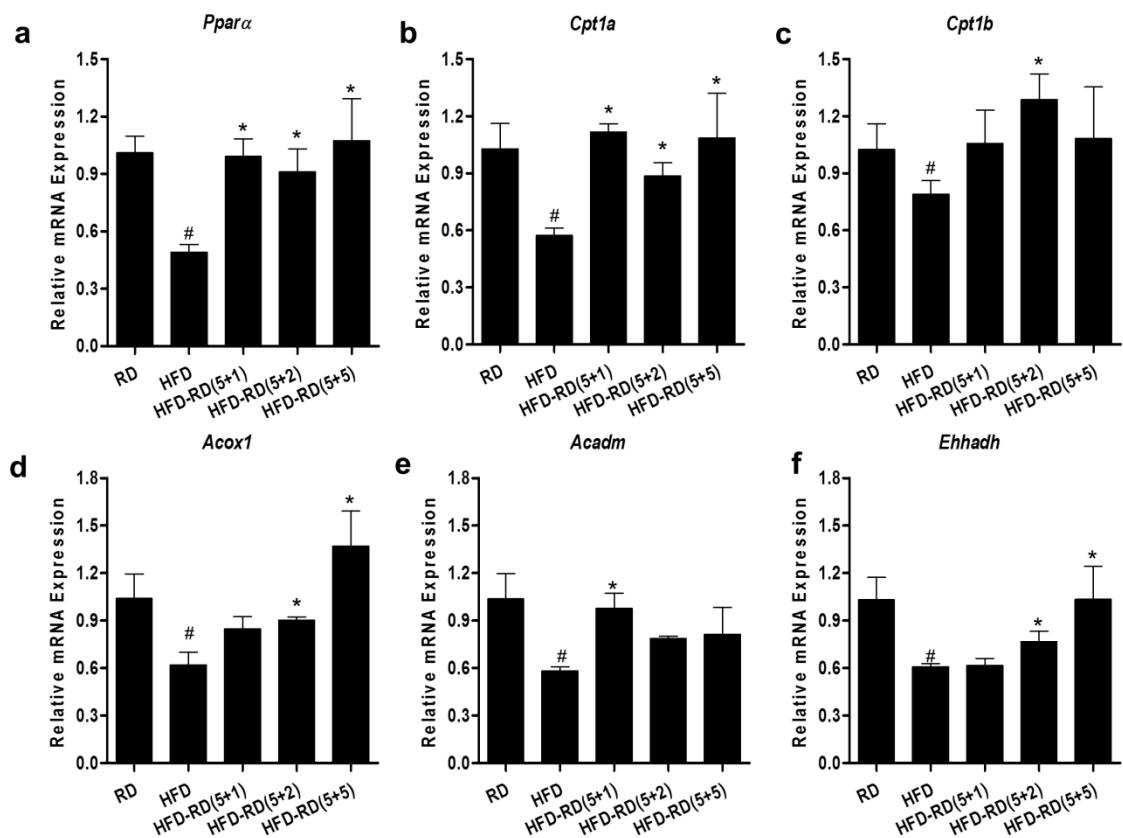


Figure S2. Alternating reversed reduction of genes expression involved in β -oxidation .

Mice were sacrificed at the end of experiment and total RNA was extracted from liver tissues.

Real time PCR was performed to determine the mRNA levels of *Ppara* (A), *Cpt1a* (B), *Cpt1b* (C), *Acox1* (D), *Adadm* (E), and *Ehhadh* (F). $^{\#}P<0.05$, $^{##}P<0.01$ compared to mice continuously fed a regular diet; $*P<0.05$, $**P<0.01$ compared to mice continuously fed an HFD (n=5).